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Remarks

Claims 1-10 and 20 are pending in this action. Claims 11-19 were cancelled due to a restriction requirement. Claims 1-10 and 20 stand rejected.

35 USC § 112 Rejection

Claim 1 is rejected under 35 U.S.C. § 112, second paragraph, based on the fact that the element "the region" is lacking an antecedent basis. That element is amended to "a region." Therefore, this rejection is now overcome and those related to the claims depending thereon. Applicants feel that this amendment is unnecessary since "region" is simply an attribute of "dummy fill shape" which does have an antecedent basis. However, to expedite prosecution, the Applicant has made the amendment since it is inconsequential in terms of the scope of the claims.

Claim 20 is also rejected under 35 U.S.C. § 112, second paragraph, based on the amendment we made during the last office action that has it depending on claim "19." Applicant's amendment was incorrect. Applicant meant to refer to claim 1. The claim 20 is accordingly amended.

35 USC § 102 Rejection

Claims 1-10 and 20 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patents Nos. 5,942,760 and 6,221,537 to Thompson et al.

Before addressing the Thompson patents separately some general statements should be made about what Applicant is claiming, versus what the two references identified by the Examiner.

The Applicant's invention teaches and claims a way to compensate for membrane distortion caused by stress in the patterned film. The method involves perforating the

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scattering film in a deterministic way and then covering the perforations with an opaque blocking layer. The Applicant uses "dummy shapes" also known as fill to accomplish this. As the application states dummy shapes are typically used to reduce micro-loading during etch or CMP. As an example the Examiner is referred to U.S. Patent 5,922,356 for one such application of such dummy or fill shapes. Since these shapes normally would print the Applicant then applies a blocking layer to the shapes to prevent shapes to prevent printing.

US 5,942,760 teaches a method of enclosing the membrane mask with an encapsulating layer (effectively a pellicle like structure). The encapsulating layer is transparent compared to the scattering layer (this is called out distinctly in the claims 1,12,25). Contrast this with the Applicant's invention uses an opaque **blocking layer** (being a mask, opaque layer or aperture) which is **patterned** to match the stress relief perforations which **prevents** the passage of radiation. US 5,942,760 uses a blanket thin film which looks similar in cross-section but completely misses the 2-dimensional patterning of my invention, is fabricated by a simple thin film deposition, and is mostly transparent.

US 6,221,537 teaches a method of adding additional support struts for mechanical strength. It is a different method of reducing stress induced patterning distortions. In 6,221,537 the inventors are strengthening the membrane itself instead of compensating for the pattern density. US 6,221,537's **struts** uses some similar fabrication techniques. However the method and what the Applicant claims remain entirely different - the thrust of Applicant's invention is to (1) provide patterning to compensate for errors and (2) cover them up. Both of these referenced patents do overlap a little with the methods of covering them up.

Now if we look at what Applicant is claiming we see that neither step of independent claim 1 is taught by the Thompson references. Neither teaches the use of dummy fill shapes in unexposed regions. (Claim 1: "adding a dummy fill shape in an unexposed region of a mask;") Neither teaches applying a blocking layer as taught by Applicant.

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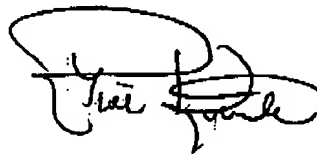
(Claim 1: "applying a blocking layer to a region of the dummy fill shape so as to prevent the printing of the dummy fill shape.") As indicated above the Examiner has misconstrued the teaching of the references and how the applicant describes the elements in the specification when applying them to the claims.

Since neither reference teaches either of the steps of independent claim 1, both of the Examiner's 35 U.S.C. § 102(b) rejections fail and claims 1-10 and 20 should be moved to allowance.

SUMMARY AND CONCLUSION

In view of the foregoing, withdrawal of the rejections and the allowance of the current pending claims is respectfully requested. If the Examiner feels that the pending claims could be allowed with minor changes, the Examiner is invited to telephone the undersigned to discuss an Examiner's Amendment.

Respectfully submitted,



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